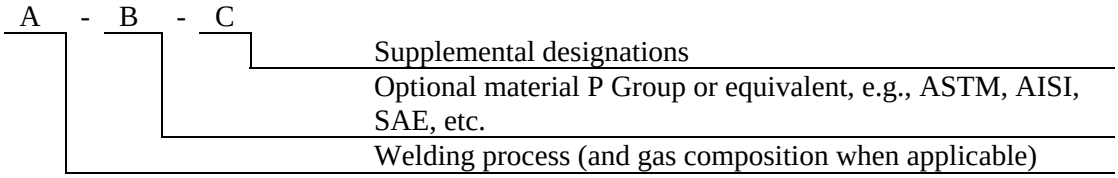
WPS DESIGNATION CODES AND NOMENCLATURE

1. The numbering of typical WPSs has up to three segments in a string as shown below.



2. The first segment in the string, "A", designates the welding, brazing, or bonding process per the listings below. Shield gas composition is shown by the last two digits when applicable. Combination material and welding processes are indicated by the slash (/) symbol (e.g., WPS 2010/3010).

1000	SMAW	Shielded Metal Arc Welding
20XX	GTAW	Gas Tungsten Arc Welding
30XX	GMAW	Gas Metal Arc Welding
35XX	FCAW	Flux Core Arc Welding
40XX	PAW	Plasma Arc Welding
5000	SAW	Submerged Arc Welding
6000	OFW	Oxyfuel Welding/Brazing
7000	TF	Thermal Fusion – Plastic
8000	CAW	Carbon Arc Welding
9000	STUD	Automatically Timed Arc
10000	Bonding	Solvent Bonding

Shield Gas Required (XX in above designations)

00	No Gas Shielding (SMAW/SAW/OFW/TF/STUD/CAW)
01	CO2 100%
02	Argon 98% / Oxygen 2%
03	Argon 75% / CO2 25%
04	Argon 71% / Helium 25% / CO2 4%
05	Argon 79% / Helium 18% / CO2 3%
06	Helium 90% / Argon 7.5% / CO2 2.5%
07	Helium 100%
08	Argon 90% / Helium 10%
09	Argon 99% / Oxygen 1%
10	100% Argon (GTAW/GMAW/PAW)
11	Argon 95% / CO2 5%
12	Argon 75% / CO2 20% / Oxygen 5%
13	Helium 80% / Argon 20%
14	Argon 75%/Helium 25%

3. Materials and material groups are assigned a P Number when weldability allows; these are relected in segment "B" in the string.

4. Supplemental designations (segment "C" in the string) may be present and include:

A	automatic machine welding
AC	alternating current
C	cast iron base materials
DC	direct current
Fxy	filler material Group or F-number. x=3 for copper and copper alloys, x=4 for nickel and nickel base, and y completes the material designation (e.g., WPS 2010-1-F32 requires ERCuSi filler)
P	pulsed
PPE	polypropylene base material
PVC	polyvinylchloride base material
PVDF	polyvinylidene fluoride base material
REBAR	reinforcing steel for concrete structures
SC	short circuit transfer
SP	spray transfer
xxx	for brazing WPSs, the filler material F-number is given (e.g., WPS 6000-102)

5. Many WPSs are developed for multiple code use (i.e., ASME and AWS); refer to WPS 3-01 for considerations about this.
6. For welding to American Petroleum Institute Standard 1104, the WPSs are preceded by "API-" and also use a sequential number for uniqueness, thus WPS API-1000-1, API-1000-2, etc.